

PART 770
INTERPRETATIONS

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§770.1**INTRODUCTION**

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. This part provides commodity, technology, and software interpretations. These interpretations clarify the scope of controls where such scope is not readily apparent from the Commerce Control List (CCL) (see Supplement No. 1 to part 774 of the EAR) and other provisions of the Export Administration Regulations.

§770.2**ITEM INTERPRETATIONS*****(a) Interpretation 1: Anti-friction bearing or bearing systems and specially designed parts***

(1) Anti-friction bearings or bearing systems shipped as spares or replacements are classified under Export Control Classification Numbers (ECCNs) 2A001, 2A002, 2A003, 2A004, 2A005, and 2A006 (ball, roller, or needle-roller bearings and parts). This applies to separate shipments of anti-friction bearings or bearing systems and anti-friction bearings or bearing systems shipped with machinery or equipment for which they are intended to be used as spares or replacement parts.

(2) An anti-friction bearing or bearing system physically incorporated in a segment of a machine or in a complete machine prior to shipment loses its identity as a bearing. In this scenario, the machine or segment of machinery containing the bearing is the item subject to export control requirements.

(3) An anti-friction bearing or bearing system not incorporated in a segment of a machine prior to shipment, but shipped as a component of a complete unassembled (knocked-down) machine, is considered a component of a machine. In this

scenario, the complete machine is the item subject to export license requirements.

(b) Interpretation 2: Classification of "parts" of machinery, equipment, or other items

(1) **An assembled machine or unit of equipment is being exported.** In instances where one or more assembled machines or units of equipment are being exported, the individual component parts that are physically incorporated into the machine or equipment do not require a license. The license or general exception under which the complete machine or unit of equipment is exported will also cover its component parts, provided that the parts are normal and usual components of the machine or equipment being exported, or that the physical incorporation is not used as a device to evade the requirement for a license.

(2) **Parts are exported as spares, replacements, for resale, or for stock.** In instances where parts are exported as spares, replacements, for resale, or for stock, a license is required only if the appropriate entry for the part specifies that a license is required for the intended destination.

(c) Interpretation 3: Wire or cable cut to length

(1) Wire or cable may be included as a component of a system or piece of equipment, whether or not the wire or cable is cut to length and whether or not it is fitted with connectors at one or both ends, so long as it is in normal quantity necessary to make the original installation of the equipment and is necessary to its operation.

(2) Wire or cable exported as replacement or spares, or for further manufacture is controlled under the applicable wire or cable ECCN only. This includes wire or cable, whether or not cut to length or fitted with connectors at one or both

ends.

(d) Interpretation 4: Telecommunications equipment and systems

Control equipment for paging systems (broadcast radio or selectively signalled receiving systems) is defined as circuit switching equipment in Category 5 of the CCL.

(e) Interpretation 5: Numerical control systems.

(1) Classification of "Numerical Control" Units. "Numerical control" units for machine tools, regardless of their configurations or architectures, are controlled by their functional characteristics as described in ECCN 2B001.a. "Numerical control" units include computers with add-on "motion control boards". A computer with add-on "motion control boards" for machine tools may be controlled under ECCN 2B001.a even when the computer alone without "motion control boards" is not subject to licensing requirements under Category 4 and the "motion control boards" are not controlled under ECCN 2B001.b.

(2) Export documentation requirement.

(i) When preparing a license application for a numerical control system, the machine tool and the control unit are classified separately. If either the machine tool or the control unit requires a license, then the entire unit requires a license. If either a machine tool or a control unit is exported separately from the system, the exported component is classified on the license application without regard to the other parts of a possible system.

(ii) When preparing the Shipper's Export Declaration (SED) or Automated Export System (AES) record, a system being shipped complete (i.e., machine and control unit), should be reported under the Schedule B number for each

machine. When either a control unit or a machine is shipped separately, it should be reported under the Schedule B number appropriate for the individual item being exported.

(f) Interpretation 6: Parts, accessories, and equipment exported as scrap

Parts, accessories, or equipment that are being shipped as scrap should be described on the SED or AES record in sufficient detail to be identified under the proper ECCN. When commodities declared as parts, accessories, or equipment are shipped in bulk, or are otherwise not packaged, packed, or sorted in accordance with normal trade practices, the Customs Officer may require evidence that the shipment is not scrap. Such evidence may include, but is not limited to, bills of sale, orders and correspondence indicating whether the commodities are scrap or are being exported for use as parts, accessories, or equipment.

(g) Interpretation 7: Scrap arms, ammunition, and implements of war

Arms, ammunition, and implements of war, as defined in the U.S. Munitions List, and are under the jurisdiction of the U.S. Department of State (22 CFR parts 120 through 130), except for the following, which are under the jurisdiction of the Department of Commerce:

(1) Cartridge and shell cases that have been rendered useless beyond the possibility of restoration to their original identity by means of excessive heating, flame treatment, mangling, crushing, cutting, or by any other method are "scrap".

(2) Cartridge and shell cases that have been sold by the armed services as "scrap", whether or not they have been heated, flame-treated, mangled, crushed, cut, or reduced to scrap by any other method.

(3) Other commodities that may have been on the U.S. Munitions List are "scrap", and therefore under the jurisdiction of the Department of Commerce, if they have been rendered useless beyond the possibility of restoration to their original identity only by means of mangling, crushing, or cutting. When in doubt as to whether a commodity covered by the Munitions List has been rendered useless, exporters should consult the Office of Defense Trade Controls, U.S. Department of State, Washington, D.C. 20520, or the Exporter Counseling Division, Office of Exporter Services, Room 1099A, U.S. Department of Commerce, Washington, D.C. 20230, before reporting a shipment as metal scrap.

(h) Interpretation 8: Military automotive vehicles and parts for such vehicles

(1) Military automotive vehicles.

(i) For purposes of U.S. export controls, military automotive vehicles "possessing or built to current military specifications differing materially from normal commercial specifications" may include, but are not limited to, the following characteristics:

(A) Special fittings for mounting ordnance or military equipment;

(B) Bullet-proof glass;

(C) Armor plate;

(D) Fungus preventive treatment;

(E) Twenty-four volt electrical systems;

(F) Shielded electrical system (electronic emission suppression); or

(G) Puncture-proof or run-flat tires.

(ii) *Automotive vehicles fall into two categories.*

(A) *Military automotive vehicles on the Munitions List, new and used.* Automotive vehicles in this category are primarily combat (fighting) vehicles, with or without armor and/or armament, "designed for specific fighting function." These automotive vehicles are licensed for export by the U.S. Department of State (22 CFR parts 120 through 130).

(B) *Military automotive vehicles not on the U.S. Munitions List, new and used.* Automotive vehicles in this category are primarily transport vehicles designed for non-combat military purposes (transporting cargo, personnel and/or equipment, and/or for towing other vehicles and equipment over land and roads in close support of fighting vehicles and troops). These automotive vehicles are licensed for export by the U.S. Department of Commerce.

(iii) *Parts for military automotive vehicles.* Functional parts are defined as those parts making up the power train of the vehicles, including the electrical system, the cooling system, the fuel system, and the control system (brake and steering mechanism), the front and rear axle assemblies including the wheels, the chassis frame, springs and shock absorbers. Parts specifically designed for military automotive vehicles on the Munitions List are licensed for export by the U.S. Department of State (22 CFR parts 120 through 130).

(iv) *General instructions.* Manufacturers of non-Munitions List automotive vehicles and/or parts will know whether their products meet the conditions described in this paragraph (h). Merchant exporters and other parties who are not sure whether their products (automotive vehicles and/or parts) meet these conditions should check with their suppliers for the required information before making a shipment under general exception or submitting an application to BIS for a license.

(2) [RESERVED]***(i) Interpretation 9: Aircraft, parts, accessories and components***

Aircraft, parts, accessories, and components defined in Categories VIII and IX of the Munitions List are under the export licensing authority of the U.S. Department of State (22 CFR parts 120 through 130). All other aircraft, and parts, accessories and components therefor, are under the export licensing authority of the U.S. Department of Commerce. The following aircraft, parts, accessories and components are under the licensing authority of the U.S. Department of Commerce:

(1) Any aircraft (except an aircraft that has been demilitarized, but including aircraft specified in paragraph (i)(2) of this section) that conforms to a Federal Aviation Agency type certificate in the normal, utility, acrobatic, transport, or restricted category, provided such aircraft has not been equipped with or modified to include military equipment, such as gun mounts, turrets, rocket launchers, or similar equipment designed for military combat or military training purposes.

(2) Only the following military aircraft, demilitarized (aircraft not specifically equipped, reequipped, or modified for military operations):

(i) Cargo, bearing designations "C-45 through C-118 inclusive," and "C-121";

(ii) Trainers, bearing a "T" designation and using piston engines;

(iii) Utility, bearing a "U" designation and using piston engines;

(iv) Liaison, bearing an "L" designation; and

(v) Observation, bearing an "O" designation and using piston engines.

(3) All reciprocating engines.

(4) Other aircraft engines not specifically designed or modified for military aircraft.

(5) Parts, accessories, and components (including propellers), designed exclusively for aircraft and engines described in paragraphs (i)(1), (i)(2), (i)(3), and (i)(4) of this section.

(6) General purpose parts, accessories, and components usable interchangeably on either military or civil aircraft.

(j) Interpretation 10: Civil aircraft inertial navigation equipment

(1) The Department of Commerce has licensing jurisdiction over exports and reexports to all destinations of inertial navigation systems, inertial navigation equipment, and specially designed components therefor for "civil aircraft".

(2) The Department of State, retains jurisdiction over all software and technology for inertial navigation systems and navigation equipment, and specially designed components therefor, for shipborne use, underwater use, ground vehicle use, spaceborne use or use other than "civil aircraft".

(k) Interpretation 11: Precursor chemicals

The following chemicals are controlled by ECCN 1C350. The appropriate Chemical Abstract Service Registry (C.A.S.) number and synonyms, (i.e., alternative names) are included to help you determine whether your chemicals are controlled by this entry.

(1) (C.A.S. #1341-49-7) Ammonium hydrogen bifluoride

Acid ammonium fluoride

Ammonium bifluoride

Ammonium difluoride

Ammonium hydrofluoride

- Ammonium hydrogen bifluoride
Ammonium hydrogen difluoride
Ammonium monohydrogen difluoride
- (2) (C.A.S. #7784-34-1) Arsenic trichloride
Arsenic (III) chloride
Arsenous chloride
Fuming liquid arsenic
Trichloroarsine
- (3) (C.A.S. #76-93-7) Benzilic acid
.alpha.,.alpha.-Diphenyl-.alpha.-hydroxyacetic acid
Diphenylglycolic acid
.alpha.,.alpha.-Diphenylglycolic acid
Diphenylhydroxyacetic acid
.alpha.-Hydroxy-2,2-diphenylacetic acid
2-Hydroxy-2,2-diphenylacetic acid
.alpha.-Hydroxy-.alpha.-phenylbenzeneacetic acid
Hydroxydiphenylacetic acid
- (4) (C.A.S. #107-07-3) 2-Chloroethanol
2-Chloro-1-ethanol
Chloroethanol
2-Chloroethyl alcohol
Ethene chlorohydrin
Ethylchlorohydrin
Ethylene chlorhydrin
Ethylene chlorohydrin
Glycol chlorohydrin
Glycol monochlorohydrin
2-Hydroxyethyl chloride
- (5) (C.A.S. #78-38-6) Diethyl ethylphosphonate
Ethylphosphonic acid diethyl ester
- (6) (C.A.S. #15715-41-0) Diethyl methylphosphonite
Diethoxymethylphosphine
Diethyl methanephosphonite
0,0-Diethyl methylphosphonite
Methyldiethoxyphosphine
Methylphosphonous acid diethyl ester
- (7) (C.A.S. #2404-03-7) Diethyl-N, N-dimethylphosphoro- amidate
N,N-Dimethyl-O,O'-diethyl phosphoramidate
Diethyl dimethylphosphoramidate
Dimethylphosphoramidic acid diethyl ester
- (8) (C.A.S. #762-04-9) Diethyl phosphite
Diethoxyphosphine oxide
Diethyl acid phosphite
Diethyl hydrogen phosphite
Diethyo phosphonate
Hydrogen diethyl phosphite
- (9) (C.A.S. #100-37-8) N, N-Diethylethanolamine
N,N-Diethyl-2-aminoethanol
Diethyl (2-hydroxyethyl) amine
N,N-Diethyl-N-(.beta.-hydroxyethyl) amine
N,N-Diethyl-2-hydroxyethylamine
Diethylaminoethanol
2-(Diethylamino) ethanol
2-(Diethylamino)ethyl alcohol
N,N-Diethylmonoethanolamine
(2-Hydroxyethyl) diethylamine
2-Hydroxytriethylamine
- (10) (C.A.S. #5842-07-9)
N,N-Diisopropyl-.beta.-aminoethane thiol
2-(Diisopropylamino) ethanethiol
Diisopropylaminoethanethiol
.beta.-Diisopropylaminoethanethiol
2-(bis(1-Methylethyl)amino) ethanethiol
- (11) (C.A.S. #4261-68-1) N, N-Diisopropyl-.2-aminoethyl chloride hydrochloride
- (12) (C.A.S. #96-80-0)
N,N-Diisopropyl-.beta.-aminoethanol
N,N-Diisopropyl-2-aminoethanol
2-(Diisopropylamino) ethanol
(N,N-Diisopropylamino) ethanol
2-(Diisopropylamino) ethyl alcohol
N,N-Diisopropylethanolamine

(13) (C.A.S. #96-79-7)

N,N-Diisopropyl-.beta.-aminoethyl chloride
2-Chloro-N,N-diisopropylethanamine
1-Chloro-N,N-diisopropylaminoethane
2-Chloro-N,N-diisopropylethylamine
N-(2-chloroethyl)-N-(1-methylethyl)-2-propanamine
N-(2-Chloroethyl) diisopropylamine
N,N-Diisopropyl-2-chloroethylamine
1-(Diisopropylamino)-2-chloroethane
2-(Diisopropylamino)ethyl chloride
Diisopropylaminoethyl chloride
.beta.-Diisopropylaminoethyl chloride

(14) (C.A.S. #108-18-9) Diisopropylamine

N,N-Diisopropylamine
N-(1-Methylethyl)-2-propanamine

(15) (C.A.S. #6163-75-3) Dimethyl ethylphosphonate

Dimethyl ethanephosphonate
Ethylphosphonic acid dimethyl ester

(16) (C.A.S. #756-79-6) Dimethyl methylphosphonate

Dimethoxymethyl phosphine oxide
Dimethyl methanephosphonate
Methanephosphonic acid dimethyl ester
Methylphosphonic acid dimethyl ester

(17) (C.A.S. #868-85-9) Dimethyl phosphite

Dimethoxyphosphine oxide
Dimethyl acid phosphite
Dimethyl hydrogen phosphite
Dimethyl phosphonate
Hydrogen dimethyl phosphite
Methyl phosphate

(18) (C.A.S. #124-40-3) Dimethylamine
N-Methyl methanamine**(19)** (C.A.S. #506-59-2) Dimethylamine hydrochloride

Dimethylammonium chloride
N-Methyl methanamine hydrochloride

(20) Reserved**(21)** (C.A.S. #1498-40-4) Ethylphosphonous dichloride

Dichloroethylphosphine
Ethyl phosphonous dichloride
Ethyldichlorophosphine

(22) (C.A.S. #430-78-4) Ethylphosphonous difluoride

Ethyldifluorophosphine

(23) (C.A.S. #1066-50-8) Ethylphosphonyl dichloride

Dichloroethylphosphine oxide
Ethanephosphonyl chloride
Ethylphosphinic dichloride
Ethylphosphonic acid dichloride
Ethylphosphonic dichloride

(24) Reserved**(25)** (C.A.S. #7664-39-3) Hydrogen fluoride

Anhydrous hydrofluoric acid
Fluorhydric acid
Fluorine monohydride
Hydrofluoric acid gas

(26) (C.A.S. #3554-74-3)

3-Hydroxyl-1-methylpiperidine
3-Hydroxy-N-methylpiperidine
1-Methyl-3-hydroxypiperidine
N-Methyl-3-hydroxypiperidine
1-Methyl-3-piperidinol
N-Methyl-3-piperidinol

(27) (C.A.S. #76-89-1) Methyl benzilate

Benzilic acid methyl ester
.alpha.-Hydroxy-.alpha.-phenylbenzeneacetic acid methyl ester
Methyl .alpha.-phenylmandelate
Methyl diphenylglycolate

(28) Reserved**(29)** Reserved

(30) Reserved

Methyl tert-butyl ketone

Pinacolin

(31) Reserved

Pinacoline

1,1,1-Trimethylacetone

(32) (C.A.S. #10025-87-3) Phosphorus oxychloride

Phosphonyl trichloride

Phosphoric chloride

Phosphoric trichloride

Phosphoroxychloride

Phosphoroxyltrichloride

Phosphorus chloride oxide

Phosphorus monoxide trichloride

Phosphorus oxide trichloride

Phosphorus oxytrichloride

Phosphorus trichloride oxide

Phosphoryl trichloride

Trichlorophosphine oxide

Trichlorophosphorus oxide

(37) (C.A.S. #464-07-3) Pinacolyl alcohol

tert-Butyl methyl carbinol

2,2-Dimethyl-3-butanol

3,3-Dimethyl-2-butanol

1-Methyl-2,2-dimethylpropanol

(38) (C.A.S. #151-50-8) Potassium cyanide

(39) (C.A.S. #7789-23-3) Potassium fluoride

Potassium monofluoride

(40) (C.A.S. #7789-29-9) Potassium hydrogen fluoride

Hydrogen potassium difluoride

Hydrogen potassium fluoride

Potassium acid fluoride

Potassium bifluoride

Potassium hydrogen difluoride

Potassium monohydrogen difluoride

(33) (C.A.S. #10026-13-8) Phosphorus pentachloride

Pentachlorophosphorane

Pentachlorophosphorus

Phosphoric chloride

Phosphorus(V) chloride

Phosphorus perchloride

(41) (C.A.S. #1619-34-7) 3-Quinuclidinol

1-Azabicyclo(2.2.2)octan-3-ol

3-Hydroxyquinuclidine

(34) (C.A.S. #1314-80-3) Phosphorus pentasulfide

Diphosphorus pentasulfide

Phosphoric sulfide

Phosphorus persulfide

Phosphorus sulfide

(42) (C.A.S. #3731-38-2) 3-Quinuclidinone

1-Azabicyclo(2.2.2)octan-3-one

3-Oxyquinuclidine

Quinuclidone

(35) (C.A.S. #7719-12-2) Phosphorus trichloride

Phosphorus chloride

Trichlorophosphine

(43) (C.A.S.) #1333-83-1) Sodium bifluoride

Sodium hydrogen difluoride

Sodium hydrogen fluoride

(36) C.A.S. #75-97-8) Pinacolone

tert-Butyl methyl ketone

2,2-Dimethyl-3-butanone

3,3-Dimethyl-2-butanone

2,2-Dimethylbutanone

3,3-Dimethylbutanone

1,1-Dimethylethyl methyl ketone

(44) (C.A.S. #143-33-9) Sodium cyanide

(45) (C.A.S. #7681-49-4) Sodium fluoride

Sodium monofluoride

(46) (C.A.S. #1313-82-2) Sodium sulfide

Disodium monosulfide

Disodium sulfide

Sodium monosulfide
Sodium sulphide

Triethoxyphosphine
Tris(ethoxy)phosphine

(47) (C.A.S. #10025-67-9) Sulfur Monochloride

(54) (C.A.S. #121-45-9) Trimethyl phosphite
Phosphorus acid trimethyl ester
Trimethoxyphosphine

(48) (C.A.S. #10545-99-0) Sulfur dichloride

(49) (C.A.S. #111-48-8) Thiodiglycol

Bis(2-hydroxyethyl) sulfide
Bis(2-hydroxyethyl) thioether
Di(2-hydroxyethyl) sulfide
Diethanol sulfide
2,2'-Dithiobis-(ethanol)
3-Thiapentane-1,5-diol
2,2'-Thiobisethanol
2,2'-Thiodiethanol
Thiodiethylene glycol
2,2'-Thiodiglycol

(50) C.A.S. #7719-09-7) Thionyl chloride

Sulfinyl chloride
Sulfinyl dichloride
Sulfur chloride oxide
Sulfur oxychloride
Sulfurous dichloride
Sulfurous oxychloride
Thionyl dichloride

(51) (C.A.S. #102-71-6) Triethanolamine

Alkanolamine 244
Nitrilotriethanol
2,2',2''-Nitrilotriethanol
2,2',2''-Nitrilotris(ethanol)
TEA
TEA(amino alcohol)
Tri(2-hydroxyethyl)amine
Triethanolamin
Tris(.beta.-hydroxyethyl)amine
Tris(2-hydroxyethyl)amine
Trolamine

(52) (C.A.S. #637-39-8) Triethanolamine hydrochloride

(53) (C.A.S. #122-52-1) Triethyl phosphite
Phosphorous acid triethyl ester

(l) Interpretation 12: Computers

(1) Digital computers or computer systems classified under ECCN 4A003.a, .b, or .c, that qualify for "No License Required" (NLR) must be evaluated on the basis of CTP alone, to the exclusion of all other technical parameters. Computers controlled in this entry for MT reasons are not eligible for License Exception CTP regardless of the CTP of the computer.

Digital computers or computer systems classified under ECCN 4A003.a, .b, or .c that qualify for License Exception CTP must be evaluated on the basis of CTP, to the exclusion of all other technical parameters, except for parameters of Missile Technology concern, or ECCN 4A003.e (equipment performing analog-to-digital conversions exceeding the limits in ECCN 3A001.a.5.a). This License Exception does not authorize the export or reexport of computers controlled for MT purposes regardless of the CTP. Assemblies performing analog-to-digital conversions are evaluated under Category 3 - Electronics, ECCN 3A001.a.5.a.

(2) Related equipment classified under ECCN 4A003.d, .e, .f, or .g may be exported or reexported under License Exceptions GBS or CIV. When related equipment is exported or reexported as part of a computer system, NLR or License Exception CTP is available for the computer system and the related equipment, as appropriate.

(3) Computer systems with 'non-uniform memory access' (NUMA) architecture should use the non-shared memory method in determining the CTP value for the system. In determining the

aggregate performance of Computing Elements (CEs) for NUMA systems, exporters should follow the instructions for groups of CEs not sharing memory, interconnected by one or more data channels.

NOTE to (I)(3): Non-Uniform Memory Access (NUMA): A multiprocessing architecture in which memory is separated into local and distant banks. NUMA is characterized by memory on the same processor board as the processor (local memory) is accessed faster than memory on other processor boards (distant memory).

(m) Interpretation 13: Encryption commodities and software controlled for EI reasons

Encryption commodities and software controlled for EI reasons under ECCNs 5A002 and 5D002 may be pre-loaded on a laptop, handheld device or other computer or equipment and exported under the tools of trade provision of License Exception TMP or the personal use exemption under License Exception BAG, subject to the terms and conditions of such License Exceptions. This provision replaces the personal use exemption of the International Traffic and Arms Regulations (ITAR) that existed for such software prior to December 30, 1996. Neither License Exception TMP nor License Exception BAG contains a reporting requirement. Like other "information security" "software", components, "electronic assemblies" or modules, the control status of encryption commodities and software is determined in Category 5, part 2 even if they are bundled, commingled or incorporated in a computer or other equipment. However, commodities and software specially designed for medical end-use that incorporate an item in Category 5, part 2 are not controlled in Category 5, part 2. See Note 1 to Category 5, part 2 ("Information Security") of Supplement No. 1 to Part 774 (the Commerce Control List) of the EAR.

(n) Interpretation 14: Encryption commodity and software reviews

Review of encryption commodities or software is required to determine eligibility of certain encryption items under License Exception ENC (see §740.17 of the EAR) or to release certain encryption items from "EI" controls (see §742.15(b)(2) of the EAR). Note that subsequent bundling, patches, upgrades or releases, including name changes, may be exported or reexported under the applicable provisions of the EAR without further review as long as the functional encryption capacity of the originally reviewed product has not been modified or enhanced. This interpretation does not extend to products controlled under a different category on the CCL.

§770.3

**INTERPRETATIONS RELATED TO
EXPORTS OF TECHNOLOGY AND
SOFTWARE TO DESTINATIONS IN
COUNTRY GROUP D:1**

(a) Introduction

This section is intended to provide you additional guidance on how to determine whether your technology or software would be eligible for a License Exception, may be exported under NLR, or require a license, for export to Country Group D:1.

(b) Scope of licenses

The export of technology and software under a license is authorized only to the extent specifically indicated on the face of the license. The only technology and software related to equipment exports that may be exported without a license is technology described in §§734.7 through 734.11 of the EAR; operating technology and software described in §740.13(a) of the EAR; sales technology described in §740.13(b) of the

EAR; and software updates described in §740.13(c) of the EAR.

(c) *Commingled technology and software*

(1) U.S.-origin technology does not lose its U.S.-origin when it is redrawn, used, consulted, or otherwise commingled abroad in any respect with other technology of any other origin. Therefore, any subsequent or similar technical data prepared or engineered abroad for the design, construction, operation, or maintenance of any plant or equipment, or part thereof, which is based on or utilizes any U.S.-origin technology, is subject to the EAR in the same manner as the original U.S.-origin technology, including license requirements, unless the commingled technology is not subject to the EAR by reason of the *de minimis* exclusions described in §734.4 of the EAR.

(2) U.S.-origin software that is incorporated into or commingled with foreign-origin software does not lose its U.S.-origin. Such commingled software is subject to the EAR in the same manner as the original U.S.-origin software, including license requirements, unless the commingled software is not subject to the EAR by reason of the *de minimis* exclusions described in §734.4 of the EAR.

(d) *Certain License Exceptions*

The following questions and answers are intended to further clarify the scope of technology and software eligible for a License Exception.

(1)(i) Question 1.

(A) Our engineers, in installing or repairing equipment, use techniques (experience as well as proprietary knowledge of the internal componentry or specifications of the equipment) that exceed what is provided in the standard manuals or instructions (including training) given to the customer. In some cases, it is also a condition of the license that such information

provided to the customer be constrained to the minimum necessary for normal installation, maintenance and operation situations.

(B) Can we send an engineer (with knowledge and experience) to the customer site to perform the installation or repair, under the provisions of License Exception TSU for operation technology and software described in §740.13(a) of the EAR, if it is understood that he is restricted by our normal business practices to performing the work without imparting the knowledge or technology to the customer personnel?

(ii) Answer 1. Export of technology includes release of U.S.-origin data in a foreign country, and "release" includes "application to situations abroad of personal knowledge or technical experience acquired in the United States." As the release of technology in the circumstances described here would exceed that permitted under the License Exception TSU for operation technology and software described in §740.13(a) of the EAR, a license would be required even though the technician could apply the data without disclosing it to the customer.

(2)(i) Question 2. We plan, according to our normal business practices, to train customer engineers to maintain equipment that we have exported under a license, License Exception, or NLR. The training is contractual in nature, provided for a fee, and is scheduled to take place in part in the customer's facility and in part in the U.S. Can we now proceed with this training at both locations under a License Exception?

(ii) Answer 2. (A) Provided that this is your normal training, and involves technology contained in your manuals and standard instructions for the exported equipment, and meets the other requirements of License Exception TSU for operation technology and software described in §740.13(a), the training may be provided within the limits of those provisions of License Exception TSU. The

location of the training is not significant, as the export occurs at the time and place of the actual transfer or imparting of the technology to the customer's engineers.

(B) Any training beyond that covered under the provisions of License Exception TSU for

operation technology and software described in §740.13(a), but specifically represented in your license application as required for this customer installation, and in fact authorized on the face of the license or a separate technology license, may not be undertaken while the license is suspended or revoked.